

The Examiner rejected Claims 1, 3 - 8, 10 - 15 and 17 - 20 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,726,688 to Siefert et al (Siefert). Applicant traverses this rejection below.

A. The Present Invention

The present invention discloses a technique for displaying and editing components of data which may have complex many-to-many (i.e., non-hierarchical) relationships, using a program such as a browser. The components are presented in such a way as to make the **relationships** explicitly visible, allowing a user to navigate the **relationships** in an efficient, intuitive manner that clearly aligns with the structure of the underlying object model. In a preferred embodiment, when the user **selects** one of the explicit relationships, he is presented with a list of actions tailored to that relationship. In a further enhancement, the user may define one or more filters that will be applied to the actions list before it is presented.

B. Differences Between the Present Claims and the Cited Art

Siefert discloses an interface for computers which changes for individual users based on past transactions and predicted future responses of the user. Siefert uses a CAD (Computer Aided Design) program to show his invention. A CAD program allows a user to generate drawings. Siefert does not disclose the use of an object model. Siefert does not disclose a technique for displaying or working with relationships within an object model. As will be discussed below, Siefert simply does not address subject matter anything like that found in the present claims.

The preamble of independent Claim 1 recites "computer readable code for implementing a convenient and intuitive visually-oriented technique for navigating an object model". Relative to this subject matter, the Office Action cites "the drop-down

Serial No.09/105,528 2

menu in Figures 1-2." It is unclear what in Figures 1 or 2 is believed to disclose an object model. There is no discussion in Siefert that the drop-down menu shows an object model. Drop-down menus are well known user interface items used in graphical user interfaces for making selection of items easier. However, the use of such menus does not teach, suggest or disclose an object model or a technique for navigating an object model.

Claim 1 further recites "a subprocess for retrieving and displaying a set of elements in said browser, said elements representing said object model". Relative to this subject matter, the Office Action cites the Siefert system displaying "the icons of FILE, DRAW, EDIT, COPY." In Column 1, lines 40-42 of Siefert, these items are described as options. When one of the options is selected (such as DRAW), the "CAD program responds by providing a menu 3 of drawing options in FIG. 2" (Col. 1 lines 42-44). The cited icons simply do not represent an object model. They are selectable options that a user may select in the process of creating or working with a drawing. Accordingly, Applicant submits that Siefert does not teach, suggest or disclose the cited subject matter from Claim 1.

Independent Claim 1 also recites "a subprocess for retrieving and displaying relationship information from said model when said selected element is a component of said model". Relative to this subject matter, the Office Action states that this subject matter is "met when Siefert shows POINT, LINE, CIRCLE, ELLIPSE, BOX, TEXT (see Figure 2)." As noted above, these elements are displayed in a menu 3 of drawing options after a user selects a DRAW option for generating drawings using the CAD program. As discussed above, this has nothing to do with an object model, much less relationships within an object model. These represent options for creating a drawing. This does not teach, suggest or disclose "retrieving and displaying relationship information..." In Siefert, no relationship information is retrieved based on selection of an element from a model, and no retrieved relationship information is then displayed.

Rather, drawing options are provided in a menu to a user. Accordingly, Applicant submits that Siefert does not disclose, teach or suggest the cited subject matter from Claim 1.

Claim 1 also recites "a subprocess for enabling said user to select one or more relationships from said displayed relationship information". Relative to this subject matter, the Office Action states that this subject matter "has to be present for the user of the system of Siefert to select from POINT, LINE, CIRCLE, ELLIPSE, BOX, TEXT (see Figure 2)." As noted above, Siefert in fact does not display relationship information. The options noted above are drawing options provided in a menu 3 (Col. 1, lines 42-44). There is no description or discussion of a user selecting a relationship. There is no description or discussion of a user selecting a relationship from "displayed relationship information." Nothing is based on the selection of an element from an object model, as per the present claimed invention. Accordingly, Applicants submit that Siefert does not teach, suggest or disclose this subject matter.

In summary, the present invention is directed to the understanding of relationships, and its claims recite the concept that relationship information is displayed and that relationships are selectable by a user. This concept is not taught, suggested or disclosed in the cited art. This is the problem with the prior art that is addressed by the present invention. Relationships exist which are difficult to present in the hierarchical format. As discussed on page 11 of the Application, "relationships are explicitly represented as elements of the model, as are the objects (components) in that model...object models which are not strictly hierarchical in structure can be conveniently and intuitively navigated, edited, and populated using the present invention...relational databases typically have many complex relationships, which are not necessarily hierarchical in structure." Further, "by explicitly displaying the complex relationships of the relational model, the present invention enables a user to better comprehend the underlying model..." (page 12).

Serial No.09/105,528 4

Accordingly, Applicant submits that independent Claim 1 patentably distinguishes over the cited art. Independent Claims 8 and 15 were rejected for the same reasons as Claim 1. Accordingly, it follows that these claims also patentably distinguish over the cited art, and it follows that the dependent claims also patentably distinguish over the cited art. Further differences between Siefert and some of the dependent claims will be discussed below.

Dependent Claim 4 recites that "said action list comprises a list of actions tailored to said selected one or more relationships." Relative to this subject matter, the Office Action cited that "the action of CENTER & RADIUS is tailored to CIRCLE." While certainly in a CAD program "CENTER" and "RADIUS" options are clearly related to the drawing of a circle, this does not teach, suggest or disclose the subject matter of Claim 4. The selected relationships refer to user selected relationships within an object model. The cited selectable options from Siefert are not based on relationships within an object model. They are drawing options. Accordingly, Applicant submits that dependent Claim 4 further distinguishes over Siefert. Since dependent Claims 11 and 18 were apparently rejected for the same rational, it follows that these claims also further distinguish over Siefert.

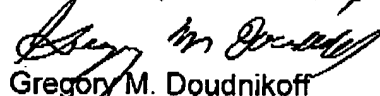
Dependent Claim 6 recites that "said action list is filtered before being presented to said user, using one or more predefined filters." Relative to this subject matter, the Office Action cites "the action list of CENTER & RADIUS, DIAMETER filtered to drawing a CIRCLE (see Figure 2)." There is certainly no discussion in Siefert to support the contention that the option presented in menu 6 of Figure 2 are in any way filtered. Rather, it would appear that these options are hard coded in the CAD application, and that no filtering occurs. No discussion of predefined filters or the use of such filters can be found in Siefert. Accordingly, Applicants submit that there is no support for the assertion that Siefert teaches, suggests or discloses the cited subject matter, and that Claim 6 therefore further distinguishes over Siefert. Since dependent Claims 13 and 20

were apparently rejected for the same rational as Claim 6, it follows that these claims also further distinguish over Siefert.

II. Summary

Applicant has presented technical explanations and arguments fully supporting his position that the pending claims contain subject matter which is not taught, suggested or disclosed by the cited art. Accordingly, Applicant submits that the present Application is in a condition for Allowance. Reconsideration of the claims and a Notice of Allowance are earnestly solicited.

Respectfully submitted,



Gregory M. Doudnikoff
Attorney for Applicant
Reg. No. 32,847

GMD:ld

Docket No: CR9-98-062
PHONE: 919-254-1288
FAX: 919-254-4330

Serial No.09/105,528 6